



August A. Busch Memorial Conservation Area
Powder Valley Conservation Nature Center
Rockwoods Reservation



Making Tracks

December 2000 Volume 00, Number 12

Habitat Time For Pondowners

by Marvin Boyer, Fisheries Management Biologist

Winter is the perfect time to work on improving the fish population in your pond. Recycled Christmas trees are readily available and make ideal habitat for small fish and insects. Cold weather is perfect for bundling up and working outdoors with the prickly softwoods, chainsaws, cinder blocks, and all the necessities of fish condos. It is also a time when cabin fever peaks and any excuse to get outside is welcome.

Why build habitat? One of the most common problems with ponds is lack of habitat for small fish and insects. The slowly decaying wood of a submerged brushpile provides all the necessities for a myriad of aquatic insects, which in turn provide food for fish in the pond. Without cover of some kind (such as brush, rock, or aquatic vegetation) many ponds produce unbalanced fish populations because the young fish are extremely vulnerable to predation. Providing habitat maximizes the food production on your pond and improves survival of young fish so a balance between

predators and prey can be obtained.

Building the brushpiles is a bit of work, but the benefits are worth it. Christmas trees are one of the easiest materials with which to work. Christmas trees are very manageable due to their average size and they provide an intricate matrix of branches for cover. Alert your relatives over the holidays that you will be recycling trees and a good stash of trees will likely follow. Or you can contact tree recycling lots to ask for a small supply. Once you have a supply of trees, you also will need cinder blocks, 2" to 3" wood screws, and plywood scraps. The easiest method of construction is to trim the trunks of the trees so the base of each tree will fit through the hole in the cinder blocks. Place one tree through each hole in the block and secure from the backside with a piece of plywood scrap that is larger than the hole in the block (usually 6 x 6). A good cordless drill and wood screws will make this quick work. Typically, one cinder block is enough weight for two Christmas trees if you don't have to shave off

the trunk to get it to fit in the hole.

Take some time to experiment to be sure your blocks are heavy enough for the trees you are using. You may need to use one small tree and one large tree per block or even put extra blocks on very large trees. The end result is an individual brushpile made of two trees and a cinder block that will stand up underwater and is very manageable with two people. You can place any number of these mini-piles in larger piles, rings, or rows at depths from 5 to 10 feet depending on the size of the trees. The brushpiles should be placed so the tops are just at the water surface, unless you don't want fishermen to know where you have hidden them.

Remember to wear your life jacket when you're working on the lake. It is obvious that moving trees and cinder blocks in a boat on cold water is a potentially dangerous situation. Get out this winter and enjoy the weather, recycle Christmas trees, and enhance your fish population.



News from
Powder Valley Conservation
 Nature Center

THE KEELBOAT AND THE CORPS OF DISCOVERY

by Jan Starke, Interpretive Programs Supervisor

In 2004, we will celebrate the 200th anniversary of the Lewis and Clark expedition. It was on May 14, 1804 the expedition broke camp at Wood River, Illinois across from where the Missouri River runs into the Mississippi. The expedition, called the Corps of Discovery, traveled in a keelboat and two smaller boats called "pirogues."

The keelboat was designed by Meriwether Lewis, who supervised its construction in Pittsburgh, Pennsylvania. It was eight feet wide and 55 feet long and could carry 12 to 14 tons. It was outfitted with a cabin with awning, an anchor, a 32-foot hinged mast with sail, a flag, lockers, oars, and push poles. The boat was equipped with a bow cannon and two blunderbusses.

When it left Pittsburgh, the boat held almost two tons of goods purchased by Lewis with \$2,500 allotted by Congress for the expedition. Lewis had picked up arms at the government arsenal at Harper's Ferry. This included 15 muzzleloading rifles, 500 rifle flints, 420 pounds of lead for bullets and gun powder.

After its completion, Lewis floated the keelboat down the Ohio River stopping in Clarksville, Indiana to join William Clark. Clark and his crew took the keelboat up the

Mississippi River. Lewis rode a horse to St. Louis where he obtained more information and collected more supplies.

When the Corps left Wood River, the boats carried 44 men and a Newfoundland dog. In addition to the arms, the keelboat carried many supplies: surveying equipment, camping supplies, clothing, medicine, a library, and gifts for the Native Americans they would meet along the way. On the Missouri River, in the first month of their journey, the boats averaged about 15 to 20 miles a day. If the wind was right, the crew would raise the keelboat's sail to propel it upriver. Otherwise, the men would have to row, push or pull this 14-ton craft against the current!

This keelboat would be a key to opening up the American West. To help celebrate the bicentennial of the Corps of Discovery, a half-size, historically authentic keelboat will soon sit in the lobby of Powder Valley Conservation Nature Center. This keelboat will be a key to opening up greater knowledge and understanding of this monumental expedition.

Come and see the keelboat! We will have festivities to mark its arrival in January. Please see the January issue of *Making Tracks* for more information.



11715 Cragwold Road
 Kirkwood, MO 63122
 (314) 301 - 1500

LOCATION: From I-44 east in Kirkwood, take Watson Road, exit and turn north on Geyer Road. Follow Geyer Road 200 yards to Cragwold Road. Go 1 mile west on Cragwold Road.

AREA HOURS:

Central Standard Time:
 8 a.m. to 6 p.m.
 Daylight Savings Time:
 8 a.m. to 8 p.m.

NATURE CENTER

HOURS: Open all year, 7 days a week, from 8 a.m. to 5 p.m.

GIFT SHOP HOURS:

Open all year, 7 days a week, from 8 a.m. to 4:30 p.m.

The Gift Shop will close

December 30 at

12:00 p.m. and will

reopen 8 a.m. January 2.

ABOUT THE AREA:

112 acres of forestland and winding creeks, three hiking trails (one wheelchair accessible). Open to visitors free of charge.

It's made of oak, yellow pine, and cedar. It has a cannon, blunderbuss, a flag and a cabin.



What Is It?

ENJOY



**AT THE POWDER VALLEY
GIFT SHOP!**

Stop by the Gift Shop and receive

15% off

any purchase December 26 - 29.

Offer not valid with other discounts.



RESIDENT ARTISANS



CREATE YOUR OWN HOLIDAY CARD

Saturday, December 2, 10:00 a.m. - 12:00 p.m.
 (Ages 8 years and up) Join Carol Kaminsky and create your very own personal holiday card during this workshop.

(Reservations begin November 21.)

HOLIDAY STORYTELLING

Sunday, December 3, 2:00 - 4:00 p.m.
 (All Ages) Carol Kaminsky will get us in the holiday spirit by telling us stories.

(Reservations begin November 21.)

News from

Rockwoods Reservation

WHAT'S FOR DINNER?

by Cindy Schweitzer, Naturalist



On a cold winter's afternoon, red-cheeked children dash through flurries of snow, startling a cardinal from its perch. The race is on for the front door and the warmth of home. Once coats, scarves, mittens, and schoolbooks are tossed aside in the front hallway, the next stop is the kitchen pantry. A few seconds of shuffling packages on the shelves reveals . . . "There's nothing to eat!" This conclusion usually means there is nothing ready to eat within 30 seconds - an eternity to a small body that has been burning up energy all day to stay warm.

As you walk down a path at Rockwoods or a neighborhood sidewalk this season, take a look around. A quick survey of the scenery reveals bare-stemmed shrubs and trees, little activity, and seemingly, nothing to eat. But for wild animals that brave this landscape, the pantry is not as empty as it seems.

A closer look at Rockwoods' winter prairie reveals clusters of seeds clinging to the shriveled flowerheads of thistle, goldenrod, and black-eyed Susan. After a snow, the tracks of finches, sparrows, and juncos can be seen

among the empty seed hulls scattered below the plants. About half the birds that winter here survive on seeds, picked from the plant or found on the ground. Mice search the ground for seeds, nuts, and fruits, sometimes foraging beneath a blanket of snow that provides shelter from predators.

An available food source that goes unutilized in the winter is, thankfully, humans. Ticks, mosquitoes, and chiggers are inactive, leaving the world safe for ankles. These insects and others, however, are still available if you know where to look. Galls on goldenrod stems and oak twigs contain juicy developing larvae. Fallen logs and tree bark shelter more larvae, eggs, and hibernating insects. These meals are important for woodpeckers, nuthatches, chickadees, titmice, and other small animals.

Scavenging animals like crows, pigeons, raccoons, and opossums go about business as usual, surviving on whatever they can find. You'll find their tracks and seed-laden scat

near trees bearing winter fruits like grapes and persimmons, preserved on the trees by the cold. Foxes and bobcats use cold weather as a natural refrigerator, killing more food than they can eat at once and burying the rest in leaves or snow. Mice stockpile food in tree cavities, and squirrels spend the fall burying nuts and acorns, each in its own place. Even under fallen leaves and snow a squirrel can use its keen sense of smell to relocate almost every morsel.

This winter, bundle up and take a walk at Rockwoods to see who is still stirring. Our new bird viewing blind is receiving a lot of activity from winter birds. You can also take home some creative bird feeding ideas from this month's programs. We hope to see you soon. Remember to keep your feeders full at home!



It's 27 ½ feet long and 4 feet wide with a 16 foot mast.



What Is It?

**2751 Glencoe Road
Wildwood, MO 63038
(636) 458 - 2236**

LOCATION:

From I-44, take Hwy 109 (Eureka exit) north 4 miles to Woods Avenue; left on Woods Avenue, and then immediately right on Glencoe Road; follow signs. *From Hwy 40 (I-64)*, take Clarkson Road south to Manchester Road; right (west) on Manchester to Hwy 109; left (south) on Highway 109, 2 miles to Woods Avenue; right on Woods Avenue, and then immediately right on Glencoe Road; follow signs. *From Manchester Road*, take Hwy 109 south 2 miles to Woods Avenue; right on Woods Avenue, and immediately right on Glencoe Road; follow signs.

AREA HOURS: Sunrise until 1/2 hour after sunset.

VISITOR CENTER

HOURS: Open seven days a week all year, except holidays, from 8 a.m. to 5 p.m.

ABOUT THE AREA:

All facilities are free to the public including:

- ◆ Education Center with exhibits and interpretive programs.
- ◆ 1,898 acres of rugged, mostly hardwood forested land interspersed with springs and streams.
- ◆ Two picnic areas (one with charcoal grills) with drinking water, tables, and toilets.
- ◆ Seven trails (one is self-guided and wheelchair accessible) totaling more than 10 miles.
- ◆ A crawl cave and a pond.
- ◆ Evidence of old mining operations.

How to register for a **DECEMBER** Program

Reservations are required unless otherwise specified. Reservations will be taken Monday through Friday from 8:00 a.m. - 5:00 p.m. Programs are intended for individuals and families only. Groups may inquire for separate programs. If you are unable to attend a program, please call and cancel your reservation as a courtesy to those on our waiting list. **Please be prompt. Arrival after 10 minutes may exclude you from the program.** Interpreting services are available for people with hearing loss with five days advanced notice.

Rockwoods

For reservations, call (636) 458 - 2236

1 Breakfast with the Birds

Friday 9:00 - 10:30 a.m.

(Adults) Check out our feeding station and new bird blind for some great winter bird watching. Please dress for the weather. Coffee, donuts, and birdseed provided.

(Reservations begin November 20.)

8 Toddling into Nature: What a Hoot!

Friday 10:15 - 11:15 a.m.
& 1:15 - 2:15 p.m.

(Ages 3 - 6) We are going to study our nocturnal friends - owls! We will look at some common owls, learn about their habitats and try to call for some. We will return to the classroom

Busch Area

For reservations, call (636) 441 - 4554

Unless otherwise specified,
all programs are one hour in length.



EAGLES

Tuesday, December 12
7:00 p.m.

(All Ages) Glen Chambers will bring Elyda, the bald eagle, and give a program about eagles. Participants will have the opportunity to learn about eagles and have the opportunity to see one up close. (Reservations begin November 28.)



6 Snake Identification

Wednesday 7:00 - 8:30 p.m.

Powder Valley

For reservations, call (314) 301 - 1500

Please limit requests to two programs per month,
with only one to include an Age 3 - 6 program.

7 Awesome Owls (Homeschool Special)

Thursday 10:00 a.m. - 12:00 p.m.

(Ages 3 - 6) These awesome animals are well equipped. Children will listen to a story and learn how owls hunt and survive. We'll walk in the woods, looking for places owls might live. Whoooo knows, maybe we'll find an owl pellet to dissect! We will then create owl craft to take home.

(Reservations begin November 22.)

7 Habitactics (Homeschool Special)

Thursday 10:00 a.m. - 12:00 p.m.

(Ages 7 - 12) Children will learn the three elements of good habitat and how pollution can damage it. We will also discover how humans impact our environment and better understand what can be done to clean and improve local habitats. (Reservations begin November 22.)

13 & 19 Christmas Dinner for the Birds

Wednesday & Tuesday 10:30 - 11:15 a.m.

(Ages 3 - 6) Join us to learn about the birds in your backyard. We'll make edible bird ornaments to decorate a tree in your yard. (Reservations begin November 29 and December 5 respectively.)

16 The Wild Singers

Saturday 10:00 - 11:00 a.m.

(All Ages) Coyotes have learned to adapt to living in our metropolitan area. Let us learn more about the lives of these larger mammals. (Reservations begin December 5.)

27 & 28 Rocking Chair Story Time

Wednesday 10:00 - 11:00 a.m. & 1:00 - 2:00 p.m.



and make an owl craft to take home. Please dress for the weather. (Reservations begin November 30.)

9 Christmas Wreath for the Birds

Saturday 12:30 - 2:00 p.m.
& 2:30 - 4:00 p.m.

(Families) Decorate a Christmas wreath with lots of goodies for our feathered friends. One wreath per family. (Reservations begin November 30.)

14 Winter Insect Investigation (Homeschool Special)

Thursday 1:30 - 3:00 p.m.

(Ages 7 - 12) We all enjoy the fact that insects are not active in the winter, but where do they go? Join us for an in-depth look at insect activity during the winter months. This investigation will be both indoors and outdoors, so please dress for the weather. (Reservations begin December 4.)



19 The Spirit of Giving

Tuesday 2:30 - 3:30 p.m.

(Families) Learn how you can help wildlife and make gifts to take home to your wild neighbors. (Reservations begin December 11.)

(Families) Learn about snakes and how to tell one from the other in this fun, active program.

(Reservations begin November 21.)

9 Gifts from Nature

Saturday 10:00 a.m. - 12:00 p.m.

(Families) You will use natural materials to create gifts and will learn about nature as you proceed from station to station at your own pace. (Reservations begin November 22.)

14 Animals in Winter

Thursday 9:30 a.m. & 11:00 a.m.

(Ages 3 - 6) How do wild animals survive during the winter? Come and find out!

(Reservations begin November 30.)

15 Owl Prowl

Friday

(Families) 7:00 p.m.

(Adults) 8:30 p.m.

You will learn about owls and their habitat. This program includes a short hike into the winter woods to search for owls. Please dress for the weather.

(Reservations begin December 1.)



19 Rudolf's Friends in Missouri

Tuesday 9:30 a.m. & 11:00 a.m.

(Ages 3 - 6) You will learn about Missouri's white-tailed deer in this fun, active program.

(Reservations begin December 5.)



Thursday 10:00 - 11:00 a.m. & 1:00 - 2:00 p.m.
(All Ages) Come and enjoy a fun-packed hour of stories, puppets, and surprises galore! (No reservations required.)

30 Come Share with Smokey Bear

Saturday 11:00 a.m. - 12:00 p.m.
& 1:00 - 2:00 p.m.

(Ages 4 - 6) Learn about forests, fire prevention, and Smokey Bear.

(Reservations begin December 16.)



30 Nature Notes

Saturday 1:00 - 3:00 p.m.

(All Ages) Have cards to send? Decorate some with nature rubber stamps. (No reservations required.)

CREATIVE WRAPS

December 2, 9, 16, & 23

1:00 - 3:00 p.m.

(All Ages) Come to the lobby and decorate some wrapping paper and/or gift tags with nature rubber stamps. (No reservations are required.)

News from

August A. **Busch** Memorial Conservation Area

ALL ABOUT ANTLERS



by Al Newman,
Volunteer Naturalist

Antlers are an outgrowth of the skeletal system, growing from small stalks or supports on the skull called pedicels. These stalks or pedicels are covered with a furry substance resembling brown suede called velvet, which is actually an extension of the skin. In the early stages of growth antlers are very susceptible to injury. They can be bruised easily. If they are cut, they will bleed. And they can even suffer from frostbite.

The growth period for antlers is very short. They begin growing in the spring around the time the fawns are born. Around September or October, they become fully hardened. At this time, the blood supply is cut off. With no nourishment the velvet dies and begins to peel or the animal will begin rubbing it off.

Unlike horns, antlers are deciduous, meaning they are shed yearly and regrow. This could be the

reason most of the human population rarely see an antlered deer. A buck reaches his prime antler growth at 5½ to 6½ years and the size of his antlers are a direct indicator of genetics and nourishment. Antlers come in a variety of types and sizes, are linked to health and vigor and help ensure breeding priority.

The short months of the antler growth period cause a strain on a mature buck similar to osteoporosis and can cause him to be extremely vulnerable to the elements. It's this period of stamina and vigor which insures that the strong survive and breed, guaranteeing the preservation of the species. The beauty of the whitetail is magnified by the image of a prime buck with polished antlers gleaming in the morning sun. But it is truly amazing to think they started out as fuzzy outcroppings of skin on the top of his head.



DECEMBER NATURAL EVENTS

- ◆ River otters begin breeding now through early April.
- ◆ Pine siskins and purple finches visit bird feeders.
- ◆ Raccoons den up during the snow and ice storms.
- ◆ Eastern cottontail rabbits use abandoned dens during heavy snow.
- ◆ Skunks sleep during weather 15 degrees or colder.
- ◆ Beavers feed on sapling reserves.
- ◆ Squirrels gather in nests to conserve energy.



**2360 Highway D
St. Charles, MO 63304
(636) 441 - 4554**

LOCATION:

From Hwy 40, take 94 south to Hwy D; turn west on D for approx. 3 miles.

From I-70, take 94/First Capitol exit; turn south on Hwy 94 to Hwy D; turn west on D for approx. 3 miles. The area entrance is on the north side of Hwy D.

HOURS: Area is open from 6 a.m. until 7 p.m.

October 1 through March 31. See area regulations for special hunt hours. Fishing hours are 6 a.m. until 6 p.m. October 1 through March 31. Rental boats are available April 1 through September 30 only. Office is open Monday through Friday from 8 a.m. until 5 p.m. and Saturday and Sunday from 8 a.m. until 4 p.m.

ABOUT THE AREA: 6,987 acres with 32 lakes and 40 ponds totaling 526 acres of water for fishing. There are six viewing blinds (two are wheelchair accessible), seven hiking trails totaling 5 miles, picnic area, staffed firearms range, and fishing jetties (some are wheelchair accessible). The area has interpretive programs, exhibits, demonstration sites, and is used by bicyclists.

The original, named "Discovery," carried brave adventurous men and a Newfoundland dog.



What Is It?

Local News & Events

Visit us on the Internet:
www.conservation.state.mo.us



Nature Notes



PREDATORS

Picture the wolf from "Little Red Riding Hood" - dangerously cunning while preying on an innocent child. We've all heard the story and the message stuck. Predators are bad.

Due to this perception, predators have suffered at the hands of people throughout history. Many predators, like eagles and hawks were needlessly killed. Some, like the wolf, were eliminated from most of their range. Although some predators today are legally protected, some are still senselessly killed out of fear and ignorance.

Despite our misgivings about them, people admire predators for the same traits which have evoked fear - their speed, power, and ability to hunt.

Predators are animals adapted for catching and eating other animals. They include magnificent, powerful animals, such as eagles, foxes, and wolves. But predators also include smaller animals such as insect-eating frogs and birds, spiders, and ladybugs.

Predators help to regulate animal populations like those of insects whose numbers could reach detrimental levels unless controlled. Predators kill for the same reason groundhogs raid gardens, songbirds visit birdfeeders, and you go to the refrigerator - hunger!



RIPARIAN ZONES

Plants that grow next to streams are said to live in the riparian zone. "Riparian" comes from the Latin word *Riparius*, which means frequenting riverbanks. Riparian plants are important. They act like the stream's kidneys, as they filter out sediment from runoff water, and tie up nutrients and pesticides that would otherwise enter the stream. They also act as a stream's food source. Streamside plants shed leaves into the stream. The leaves are eaten by aquatic insects, which in turn, will be eaten by fish. Tree roots act like a streambank's skeleton, holding soil particles together and preventing streambank erosion. Finally, trees shade the stream like a big straw hat, keeping the water from overheating.

Riparian areas are also important as animal homes. Streamside trees, especially large trees with cavities, provide valuable habitat for songbirds, amphibians, reptiles, and mammals. When a tree falls into a stream, it becomes important in-stream habitat for smallmouth bass, channel catfish, and other fish.

Trees, shrubs, and grasses living along stream channels deserve our care and protection. Leave at least 100 feet of undisturbed vegetation along streams and plant trees along stream banks if trees are absent.



GIVE US A SHOT!

BUSCH RANGE

Hours for December 2000:

10:00 a.m. - 4:00 p.m. Friday - Tuesday

Closed Wednesday & Thursday

For more information, call (636) 441 - 4554 ext. 251

HENGES RANGE

Hours for December 2000:

10:00 a.m. - 4:00 p.m. Wednesday - Sunday

Closed Monday, Tuesday,

Special Events & Holidays

For more information, call (636) 938 - 9548

Answer to "What Is It?"



It's a half size authentic replica of the keelboat that carried Lewis and Clark on their expedition of discovery. It will be coming to Powder Valley soon to kick off the bicentennial celebration of the voyage of "Discovery" in 2004.



Making Tracks

Missouri Department of Conservation

11715 Cragwold Road

Kirkwood, MO 63122

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MO DEPT OF CONSERVATION



POWDER VALLEY

*Marlene Ahrens
Suzanne Goette
Linda Hibbitts
Mary P. Hittler
Susan Hussey
Eleanora Markus
Dietrich Mueller
Doris Peters
Kristin Pierce
Cheryl Rafert
Frank William Stoker
Cindy Taylor
Steve Winkler*

ROCKWOODS

*Matt Kouzes
Joe Ritter
John Ruprecht
Brad Sutherland*

BUSCH

*Penny Elder
Tom Gerringe
Billy Key
Madolena Key
Kathleen Hellman
Lynn LePage*

Volunteer Milestones

THANK YOU
for all your
effort and help!

Busch Conservation Area

Fred Immen250 hours
Margaret McGregor.....300 hours
Jeanie Moe.....300 hours
George Pryor.....1,700 hours
Larry Taylor.....500 hours

Powder Valley Nature Center

Michael Akin.....200 hours
Carl Combs.....500 hours
Joan Hummel.....2,600 hours
Paula Lee.....500 hours
Liz McCane.....1,800 hours
Art Paule.....3,000 hours
Shirley Pearlstone.....200 hours
Ron Pohle.....300 hours
Amy Specht.....200 hours

Rockwoods Reservation

Jan Castanis.....450 hours
Amber Edwards.....400 hours
Kathy Edwards.....1,400 hours
Richard Mehringer.....1,400 hours
Glenda Myers.....1,200 hours
Sally Roberts.....200 hours